REFERENCES

Adams, J.M., & Cory, S. (1998). The bcl-2 protein family: arbiters of cell survival. *Science, 281*, 1322–1326.

Afanas'ev, V.N., Korol', B.A., Mantsygin, Y.A., Nelipovich, P.A., Pechatnikov, V.A., & Umansky, S.R. (1986). Flow cytometry and biochemical analysis of DNA degradation characteristics of two types of cell death. *FEBS Letter, 194*, 347–350.

Aggarwal, B.B., & Shishoida, S. (2006). Molecular targets of dietary agents for prevention and therapy of cancer. *Biochemical Pharmacology, 71*, 1397–1421.

Aggarwal, B.B., Danda, D., Gupta, S., & Gehlot, P. (2009). Models for prevention and treatment of cancer: Problems vs promises. *Biochemical Pharmacology, 78(9)*, 1083–1094.

Ahmad, M.U., Husain, S.K., & Osman, S.M. (1981). Ricinoleic acid in *Phyllanthus niruri* seed oil. *Journal of the American Oil Chemists' Society, June 1981*, 673–674.

Ahmed, B., Khan, S., Verma, A., & Habibullah. (2009). Antihepatotoxic activity of debalalactone, a new oxirano-furanocoumarin from *Phyllanthus debilis*. *Journal of Asian Natural Products Research, 11(8)*, 687–692.

Akiyama, T., Ishida, J., Nikagawa, H., Watanabe, S., Itoh, N., Shibuy, A.M., et al. (1987). Genistein. A specific inhibitor of tyrosine-specific protein kinases. *Journal of Biological Chemistry, 262*, 5592–5595.

Allen, R.T., Hunter III, W.J., & Agarwal, D.K. (1997). Morphological and biochemical characterization and analysis of apoptosis. *Journal of Pharmacological and Toxicological Methods*, *37*, 215–228.

American Cancer Society. (2009). Cancer Facts & Figure 2009. Atlanta: American Cancer Society. Retrieved 10 July 2010, from http://www.cancer.org/acs/groups/content/@nho.../cffaa20092010pdf.pdf.

Aquilina, G., Crescenzi, M., & Bignami, M. (1999). Mismatch repair, G(2)/M cell cycle arrest and lethality after DNA damage. *Carcinogenesis*, *20*, 2317–2326.

Asha, V.V, Akhila, W.P.J., & Subramaniam, A. (2004). Further studies on the antihepatotoxic activity of *Phyllanthus maderaspatensis* Linn. *Journal of Ethnopharmacology, 92,* 67–70.

Ashkenazi, A., & Dixit, V.M. (1998). Death receptors: signaling and modulation. *Science, 281,* 1305–1308.

Au, W.W., Abdou-Salama, S., Sierra-Torres, C.H., & Al-Hendy, A. (2007). Environment risk factors for prevention and molecular intervention of cervical cancer. *International Journal of Hygiene and Environmental Health, 210(6),* 671–678.

Avato, P., & Tava, A. (1995). Acetylenes and terpenoids of *Bellis perennis*. *Phytochemistry, 40(1),* 141–147.

Baker, J.T., Borris, R.P., Carte, B., Cordell, G.A., Soejarto, D.D., Cragg, G.M., et al. (1995). Natural products drug discovery and development: new perspectives on international collaboration. *Journal of Natural Products, 58(9),* 1325–1357.

Baker, S.J., & Reddy, E.P. (1998). Modulation of life and death by the TNF receptor superfamily. *Oncogene, 17,* 3261–3270.

Bakkali, F., Averbeck, S., Averbeck, D., & Idaomar, M. (2008). Biological effects of essential oils-A review. *Food and Chemical Toxicology, 46,* 446–475.

Balandrin, M.F., Kinghorn, A.D., & Farnsworth, N.R. (1993). Plant-derived natural products in drug discovery and development. In *Human Medicinal Agents from Plants*. (p.2). Washington DC: American Chemical Society.

Balunas, M.J., & Kinghorn, A.D. (2005). Drug discovery from medicinal plants. *Life Sciences, 78,* 431–441.

Bandyopadhyay, S.K., Pakrashi, S.C., & Pakrashi, A. (2000). The role of antioxidant activity of *Phyllanthus emblica* fruits on prevention from indomethacin induced gastric ulcer. *Journal of Ethnopharmacology, 70(2),* 171–176

Bardon, S., Foussard, V., Fournel, S., & Loubat, A. (2002). Monoterpenes inhibit proliferation of human colon cancer cells by modulating cell cycle-related protein expression. *Cancer Letters, 181,* 187–194.

Bardon, S., Picard, K., & Martel, P. (1998). Monoterpenes inhibit cell growth, cell cycle progression, and cyclin D1 gene expression in human breast cancer cell lines. *Nutrition and Cancer, 32,* 1–7.

Barlogie, B., Raber, M.N., Schumann, J., Johnson, T.S., Drewinko, B., Swartzendruber, D.E., et al. (1983). Flow cytometry in clinical cancer research. *Cancer Letters, 43,* 3982–3997.

Barros, M.E., Lima, R., Mercuri, L.P., Matos, J.R., Schor, N., & Boim, M.A. (2006). Effect of extract of *Phyllanthus niruri* on crystal deposition in experimental urolithiasis. *Urology Research, 34,* 351–357.

Barthakur, N.N., & Arnold, N.P. (1991). Chemical analysis of the emblic (*Phyllanthus emblica* L.) and its potential as a food source. *Scientia Horticulturae, 47(1-2*), 99–105.

Basharat, A. (1998). Medicinal properties of various species of *Phyllanthus*. *Hamdard-Medicus, 41,* 109–110.

Benavente-García, O., Castillo, J., Marín, F.R., Ortuño, A., & Del Rio, J.A. (1997). Uses and properties of citrus flavonoids. *Journal of Agricultural and Food Chemistry, 45,* 4505–4515.

Bertino, J.R. (1997). Irinotecan for colorectal cancer. *Seminars in Oncology, 24,* S18–S23.

Besson, A., Dowdy, S.F., & Roberts, J.M. (2008). CDK inhibitors: cell cycle regulators and beyond. *Developmental Cell, 14,* 159–169.

Beveridge, T.H., Li, T.S., & Drover, J.C. (2002). Phytosterol content in American ginseng seed oil. *Journal of Agricultural and Food Chemistry, 50,* 744–750.

Bindseil, K.U., Jakupovic, J., Wolf, D., Lavayre, J., Leboul, J., & van der Pyl, D. (2001). Pure compounds libraries: a new perspectives for natural product based drug discovery. *Drug Discovery Today, 6,* 840–847.

Birt, D.F., Hendrich, S., & Wang, W. (2001). Dietary agents in cancer prevention: flavonoids and isoflavonoids. *Pharmacology & Therapeutics, 90,* 157–177.

Blagosklonny, M.V., & Pardee, A.B. (2002). The restriction point of the cell cycle. *Cell Cycle, 1,* 103–110.

Boik, J. (2001). *Natural Compounds in Cancer Therapy*. Minnesota, USA: Oregon Medical Press.

Bold, R.J., Termuhlen, P.M., & McConkey, D.J. (1997). Apoptosis, cancer and cancer therapy. *Surgical Oncology. 6,* 133–142.

Borenfreund, E., & Puerner, J.A. (1984). A simple quantitative procedure using monolayer culture for toxicity assays. *Journal of Tissue Culture Methods*. 9: 7–9.

Borenfreund, E., & Puerner, J.A. (1985). Toxicity determined *in vitro* by morphological alterations and neutral red absorption. *Toxicology Letters*. 24: 119–124.

Bortner, C.D. Nicklas, B., Oldenburg, E. & Cidlowski, J.A. (1995). The role of DNA fragmentation in apoptosis. *TRENDS in Cell Biology, 5,* 21–26.

Bossy-Wetzel, E. and Green, D.R. (1999). Apoptosis: checkpoint at the mitochondrial frontier. *Mutation Research*. 434: 243–251.

Bourgaud, F., Gravot, A., Milesi, S., & Gontier, E. (2001). Production of plant secondary metabolites: a historical perspective. *Plant Science, 161,* 839–851.

Boyle, P., & Levin, B. (2008). World Cancer Report 2008. *International Agency for Research on Cancer*. 1–260.

Braverman, I.M. (2002). Skin manifestations of internal malignanacy. *Clinics in Geriatric Medicine, 18(1),* 1–19.

Bravo, L. (1998). Polyphenols: chemistry, dietary sources, metabolism and nutritional significance. *Nutrition Reviews, 11,* 317–333.

Burkill, I.H. (1966). *A Dictionary of the Economic Products of the Malay Peninsula*. London: Crown Agents for the Colonies.

Bury, J., & Cross, S. (2003). Molecular biology in diagnostic histopathology: Part 1-The cell cycle. *Current Diagnostic Pathology, 9(4),* 266–275.

Butler, M.S. (2004). The role of natural products chemistry in drug discovery. *Journal of Natural Products, 67(12),* 2141–2153.

Cain, K., Brown, D.G., Langlais, C., & Cohen, G.M. (1999). Caspase activation involves the formation of the aposome, a large (approximately 700 kDa) caspase-activating complex. *Journal of Biological Chemistry, 274,* 22686–22692.

Calixto, J.B., Santos, A.R.S., Filho, V.C., & Yunes, R.A. (1998). A review of the plants of the genus *Phyllanthus*: their chemistry, pharmacology, and therapeutic potential. *Medicinal Research Reviews, 18(4),* 225–258.

Cerutti, P.A. (1985). Prooxidant states and tumor promotion. *Science, 227,* 375–381.

Chan, K.L., Low, B.S., Teh, C.H., & Das, P.K. (2009). The effect of *Eurycoma longifolia* on sperm quality of male rats. *Natural Product Communications, 4(10),* 1331–1336.

Chang, J.C.N. (1998). A review of breast cancer chemoprevention. *Biomedicine and Pharmacotherapy, 52*, 133–136.

Chantharanothai, P. (2009). Flora of Thailand. Retrieved 23 September 2010, from http://www.nationaalherbarium.nl/thaieuph/ThPspecies/ThPhyllanthus.htm#Phyllanthus_roseus.

Chemma, M., Cody, R., & Krishnan, K. (2001). Cancer chemoprevention. *Federal Practitioner, 18(10),* 48–53.

Chen, M., & Wang, J. (2003). Initiator caspases in apoptosis signaling pathways. *Apoptosis, 7,* 313–319.

Chen, Y.C., Shen, S.C., Chow, J.M.. Ko, C.H., & Tseng, S.W. (2004). Flavone inhibition of tumor growth via apoptosis *in vitro* and *in vivo*. *International Journal of Oncology, 25,* 661–670.

Cheng, Y.L., Chang, W.L., Lee, S.C., Liu, Y.G., Chen, C.J., Lin, S.Z., et al. (2004). Acetone extract of *Angelica sinensis* inhibits proliferation of human cancer cells via inducing cell cycle arrest and apoptosis. *Life Sciences, 75,* 1579–1594.

Chiang, L.C., Ng, L.T., Lin, I.C., Kuo, P.I., & Lin C.C. (2006). Anti-proliferative effect of apigenin and its apoptotic induction in human Hep G2 cells. *Cancer Letters, 237,* 207–214.

Chiang,L.C., Chiang,W., Chang, M.Y., Ng, L.T., & Lin, C.C. (2003). Antileukimic activity of selected natural products in Taiwan. *The American Journal of Chinese Medicine, 31*, 37–46.

Chien, S.c., Chang, J.y., Kuo, C.C., Hsieh, C.C., Yang, N.S. & Kuo, Y.H. (2007). Cytotoxic and novel skeleton compounds from the heartwood of *Chamaecyparis obtuse* var. *formosana*. *Tetrahedron Letters, 48,* 1567–1569.

Chin, H.F. (1986). Rambai and tampoi in Malaysia. *Yearbook-West Australian Nut and Tree Crops Association, 11,* 72–73.

Chirdchupunseree, H. & Pramyothin, P. (2010). Protective activity of phyllanthin in ethanol-treated primary culture of rat hepatocytes. *Journal of Ethnopharmacology. 128,* 172–176.

Choedon, T., Shukla, S.K. & Kumar, V. (2010). Chemopreventive and anti-cancer properties of the aqueous extract of flowers of *Butea monosperma*. *Journal of Ethnopharmacology, 129,* 208–213.

Chopra, R.N., Nayer, S.L., & Chopra, I.C. (1956). Glosarry of Indian Medicinal Plants. (p.191). CSIR, New Delhi.

Chung, H.L., Li, J.H., Sheng, C.K., Tsung, H.L., Kan, J.T., & Hsu, C.C. (2009). 4-Fluoro-*N*-butylphenylacetamide (H6) inhibits cell growth via cell-cycle arrest and apoptosis in human cervical cancer cells. *Biorganic & Medicinal Chemistry, 17,* 42–48.

Chung, S.K., Nam, J.A., Jeon, S.Y., Kim, S.I., Lee, H.J., Chung, T.H., et al. (2003). A prolyl endopeptidase-inhibiting antioxidant from *Phyllanthus ussurensis*. *Archives of Pharmal Research, 26(12),* 1024–1028.

Cohen, G.M., Sun, X.M., Snowden, R.T., Dinsdale, D., & Skilleter, D.N. (1992). Key morphological features of apoptosis may occur in the absence of internucleosomal DNA fragmentation. *Biochemical Journal, 286,* 331–334.

Colditz, G.A., Branch, L.G., Lipnick, R.J., Willett, W.C., Rosner, B., & Hennekens, C.H. (1985). *American Journal of Clinical Nutrition, 41,* 32–26.

Collins, R.J., Harmon, B.V., Gobe, G.C., & Kerr, J.F. (1992). Internucleosomal DNA cleavage should not be the sole criterion for identifying apoptosis. *Journal of Radiation Biology, 61,* 451–453.

Constantini, P., Jocotot, E., Decaudin, D. & Kroemer, G. (2000). Mitochondrion as a novel target of anticancer chemotherapy. *Journal of National Cancer Institute, 92,* 1042–1053.

Cook, J.A., & Mitchell, J.B. (1989). Viability measurements in mammalian cell systems. *Analytical Biochemistry. 179,* 1–7.

Coqueret, O. (2002). Linking cyclins to transcriptional control. *Gene, 299,* 35–55.

Cortes, J.E., & Pazdur, R. (1995). Docetaxel. *Journal of Clinical Oncology, 13,* 2643–2655.

Coussens, L.M., & Werb, Z. (2002). Inflammation and cancer. *Nature, 420(6917),* 19–26.

Cragg, G.M., & Newman, D. (1999). Discovery and development of antineoplastic agents from natural sources. *Cancer Investigation, 17,* 153–163.

Cragg, G.M., & Newman, D.J. (2005). Plants as a source of anti-cancer agents. *Journal of Ethnopharmacology, 100,* 62–79.

Cragg, G.M., Grothaus, P.G., & Newman, D.J. (2009). Impact of natural products on developing new anti-cancer agents. *Chemical Review, 109,* 3012–3043.

Creagh, E.M., & Martin, S.J. (2001). Caspases: cellular demolition experts. *Biochemical Society Transactions, 29,* 696–702.

Creemers, G.J., Bolis, G., Gore, M., Scarfone, G., Lacave, A.J., Guastalla, J.P., et al. (1996). Topotecan, an active drug in the second-line treatment of epithelial ovarian cancer. *Journal of Clinical Oncology, 14,* 3056–3061.

Crowell PL, & Gould MN (1994). Chemoprevention and therapy of cancer by *d*-limonene. *CRC Critical Reviews in. Oncology, 5,* 1–22.

Crowell, P.L., & Gould, M.N. (1994). Chemoprevention and therapy of cancer by *d*-limonene. *CRC Critical Review in Oncology, 5,* 1–22.

Cutts, J.H., Beer, C.T., & Noble, R.L. (1960). Biological properties of vincaleukoblastine, an alkaloid in *Vinca rosea* Linn, with reference to its antitumor action. *Cancer Research, 20,* 1023–1031.

da Rocha, A.B., Lopes, R.M., & Schwartsmann, G. (2001). Natural products in anticancer theraphy. *Current Opinion in Pharmacology, 1,* 364–369.

da Silva pinto, M., Lajolo, F.M., & Genovese, M.I. (2008). Bioactive compounds and quantification of total ellagic acid in strawberries (*Fragaria x ananassa* Duch.). *Food Chemistry, 107,* 1629–1635.

Darison, G.W.H. (1988). *Endau Rompin: A Malaysian Heritage*. (p.112). Kuala Lumpur: Malaya Nature Society.

Das, M., Bickers, D.R., & Mukhtar, H. (1985). Effects of ellagic acid on hepatic and pulmonary xenobiotic metabolism in mice: studies on the mechanism of its anticarcinogenic action. *Carcinogenesis, 6,* 1409–1413.

de Mesquita, M.L., de Paula, J.E., Pessoa, C., de Moraes, M.O., Lotufo, L.V.C., Grougnet, R., et al. (2009). Cytotoxic activity of Brazilian Cerrado plants used in traditional medicine against cancer cell lines. *Journal of Ethnopharmacology, 123,* 439–445.

De Souza, T.P., Holzschuh, M.H., Lionço, M.I., Ortega, G.G., & Petrovick, P.R. (2002). Validation of LC methods for the analysis of phenolic compounds from aqueous extract of *Phyllanthus niruri* aerial parts. *Journal of Pharmaceutical and Biomedical Analysis, 30(2),* 351–356.

De Vita, V.T Jr., Serpick, A.A., & Carbone, P.O. (1970). Combination chemotherapy in the treatment of advanced Hodgkin's disease. *Annals of Internal Medicines, 73,* 881–895.

de Vogel, J., Jonker-Termont, D.S,M.L., van Lieshout, E.M.M., Katan, M.B., & van deer Meer, R. (2005). Green vegentables, red meat and colon cancer: chlorophyll prevents the cytotoxic and hyperproliferative effects of haem in rat colon. *Carcinogenesis, 26(2),* 387–393.

Dessauge, F., Lizundia, R., Baumgartner, M., Chaussepied, M., & Langsley, G. (2005). Taking the Myc is bad for *Theileria*. *Trends in Parasitology, 21(8),* 377–385.

Dhiman, R.K., & Chawla, Y.K. (2005). Herbal medicines for liver diseases. *Digestive Diseases and Sciences, 50(10),* 1807–1812.

Duh, C.Y., Wang, S.K., Chu, M.J., & Sheu, J.H. (1998). Cytotoxic sterols from the soft coral *Nephthea erecta*. *Journal of Natural Products, 61(8),* 1022–1024.

Duke, R.C. (2004). Methods of analyzing chromatin changes accompanying apoptosis of target cells in killer cell assays. In Brady, H.J.M. (ed), *Methods in Molecular Biology: Apoptosis Methods and Protocols*. (pp.47-48). Humana Press Inc.

Duprez, L., Wirawan, E., Berghe, T.V., & Vandenabeele, P. (2009). Major cell death pathways at a glance. *Microbes and Infection, 11(13),* 1050–1062.

Duvall, E., & Wyllie, A.H. (1986). Death and the cell. *Immunology Today, 7,* 115–119.

Earnshaw, W.C., Martins, L.M., & Kaufmann, S.H. (1999). Mammalian caspases: structure, activation, substrate, and functions during apoptosis. *Annual Review of Biochemistry, 68,* 383–424.

El-Desouky, S.K., Ryu, S.H., & Kim, Y.K. (2008). A new cytotoxic acylated apigenin glucoside from *Phylanthus emblica* L. *Natural Product Research, 22(1),* 91–95.

Elegbede, J.A., Elson, C.E., Qureshi, A., Tanner, M.A., & Gould, M.N. (1984). Inhibition of DMBA-induced mammary cancer by the monoterpene *d*-limonene. *Carcinogenesis, 5,* 661–664.

Emmy, H.K.I., Khoo, H.E., Abbe Maleyki, M.J., Amin, I., Salma, I., Azrina, A., et al. (2009). Antioxidant capacity and total phenolic content of Malaysian underutilized fruits. *Journal of Food Composition and Analysis, 22,* 388–393.

Engel, D.H., & Phummai, S. (2000). *A Field Guide to Tropical Plants of Asia*. (p.110). Times Edition.

Fakim, A.G. (2006). Medicinal plants: Traditions of yesterday and drugs of tomorrow. *Molecular Aspects of Medicine, 27,* 1–93.

Fan, T.J., Han, L.H., Cong, R.S., & Liang, J. (2005). Caspase family proteases and apoptosis. *Acta Biochimica and Biophysica Sinica, 37,* 719–727.

Farouk, A.A., & Benafri, A. (2007). Antibacterial activity of *Eurycoma longifolia* Jack: A Malaysian medicinal plant. *Saudi Medical Journal, 28(9),* 1422–1424.

Fernie, A. (2007). The future of metabolic phytochemistry: Larger numbers of metabolites, higher resolution, greater understanding. *Phytochemistry, 68 (22–24),* 2861–2880.

Ferrer, M., Sanchez-Lamar, A., Fuentes, J.L., Barbe, J., & Llagostera, M. (2002). Antimutagenic mechanisms of *Phyllanthus orbicularis* when hydrogen peroxide is tested using *Salmonella* assay. *Mutation Research, 517,* 251–254.

Firn, R.D., & Jones, C.G. (2003). Natural products-a simple model to explain chemical diversity. *Natural Product Reports Articles, 20,* 382–391.

Fisher, D.E. (1994). Apoptosis in cancer therapy: crossing the threshold. *Cell, 78,* 539–542.

Fjaeraa, C., & Nanberg, E. (2009). Effect of ellagic acid on proliferation, cell adhesion and apoptosis in SH-SY5Y human neuroblastoma cells. *Biomedicine & Pharmacotheraphy, 63,* 254–261.

Franceschi, S., Bidoli, E., La Veccia, C., Talamini, R., D'Avanzo, B., & Negri, E. (1994). Tomatoes and risk of digestive-tract cancers. *International Journal of Cancer, 59,* 181–184.

Frankfurt, O.S., Greco, W.R., Slocum, H.K., Arbuck, S.G., Gamarra, Z., Pavelic, P., et al. (1984). Proliferative characteristics of primary and metastatic human solid tumors by DNA flow cytometry. *Cytometry, 5(6),* 629–635.

Freshney, R.I. (1994). *Culture of Animal Cells: A Manual of Basic Technique*. (pp.287–296). New York: Wiley-Liss.

Friedberg, E.C., McDaniel, L.D., & Schultz, R.A. (2004). The role of endogenous and exogenous DNA damage and mutagenesis. *Current Opinion in Genetics & Development, 14,* 5–10.

Fulda, S. (2008). Betulinic acid for cancer treatment and prevention. *International Journal of Molecular Sciences, 9,* 1096–1107.

Fulda, S., Jeremias, I., Steiner, H.H., Pietsch, T., & Debatin, K.M. (1999). Betulinic acid: A new cytotoxic agent against malignant brain-tumor cells. *International Journal of Cancer, 82,* 435–441.

Gantet, P., & Memelink, J. (2002). Transcription factors: tools to engineer the production of pharmacologically active plant metabolites. *Trends in Pharmacological Sciences, 23(12),* 563–569.

Geran, R.I., Greenberg, N.H., McDonald, M.M., Schumacher, A.M., & Abbott, B.J. (1972). Protocols for screening chemical agents and natural products against animal tumor and other biological systems. *Cancer Chemotherapy Reports*, *3(2)*, 17–19.

Gibb, R.K., Taylor, D.D., Wan, T., O'Connor, D.M., Doering, D.L., & Taylor, C.G. (1997). Apoptosis as a measure of chemosensitivity to cisplatin and taxol therapy in ovarian cancer cell lines. *Gynecologic Oncology, 65,* 13–22.

Giovannucci, E., Ascherio, A., Rimm, E.B., Stampfer, M.J., Colditz, G.A., & Willet, W.C. (1995). Intake of carotenoids and retinol in relation to risk of prostate cancer. *Journal of the National Cancer Institute, 87,* 1767–1776.

Giridharan, P., Somasundaram, S., Perumal, K., Vishwakarma, R.A., Karthikeyan, N.P., Velmurugan, R., et al. (2002). Novel substituted methylenedioxy lignan suppress proliferation of cancer cells by inhibiting telomerase and activation of *c*-myc and caspases leading apoptosis. *British Journal of Cancer, 87,* 98–105.

Gosslau, A., & Kuang, Y.C. (2004). Nutraceuticals, apoptosis, and disease prevention. *Nutrition, 20,* 95–102.

Goto, K.N., Nakamura, S., Bastow, K.F., Nyarko, A., Peng, C.Y., Lee, F.C., et al. (2007). Antitumor agents. 256. Conjugation of paclitaxel with other antitumor agents: evaluation of novel conjugates as cytotoxic agents. *Bioorganic & Medicinal Chemistry Letters, 17(10)*, 2894–2898.

Green, D.R., & Reed,J.C. (1998). Mitochondria and apoptosis. *Science, 281,* 1308–1312.

Griffith, T.S., & Lynch, D.H. (1998). TRAIL: a molecule with multiple receptors and control mechanisms. *Current Opinion in Immunology, 10,* 559–563.

Gross, A., McDonnell, J.M. & Korsmeyer, S.J. (1999). BCL-2 family members and the mitochondria in apoptosis. *Genes & Development, 13,* 1899–1911.

Gunawan, I.W.G., Gede Bawa, I.G.A., & Sutrisnayanti, N.L. (2008). Isolasi dan identifikasi senyawa terpenoids yang aktif antibakteri pada herba meniran (*Phyllanthus niruri* Linn). *Jurnal Kimia, 2(1),* 31–39.

Hail Jr, N. (2005). Mitochondria: a novel target for the chemoprevention of cancer. *Apoptosis, 10,* 687–705.

Hail Jr, N., Cortes, M., Drake, E.N., & Spallholz, J.E. (2008). Cancer chemoprevention: A radical perspective. *Free Radical Biology & Medicine, 45,* 97–110.

Hansakul, P., Ngamkitidechakul, C., Ingkaninan, K., Sireeratawong, S., & Panunto, W. (2009). Apoptotic induction activity of *Dactyloctenium aegyptium* (L.) P.B. and *Eleusine indica* (L.) Gaerth. Extracts on human lung and cervical cancer cell lines. *Songklanakarin Journal of Science and Technology, 31(3)*, 273–279.

Harada, H., Yamashita, U., Kurihara, H., Fukushi, E., Kawabata, J., & Kamei, Y. (2002). Antitumor activity of palmitic acid found as a selective cytotoxic substance in a marine red alga. *Anticancer Research, 22,* 2587–2590.

Harbone, J.B. & Williams, C.A. (2000). Advances in flavonoid research since 1992. *Phytochemistry, 55,* 481–504.

Harikumar, K.B., Kuttan., G.K., & Kuttan, R. (2009). *Phyllanthus amarus* inhibit cell growth and induces apoptosis in Dalton's Lymphoma Ascites cells through activation of caspase-3 and downregulation of Bcl-2. *Integrative Cancer Therapies, 8(2)*, 190–194.

Harinder, P., Makkar, S., Siddhuraju, S., Sidduraju, P., & Becker, K. (2007). *Plant secondary metabolites*. (p.5). New Jersey: Humana Press Inc.

Harish, R., & Shivanandappa, T. (2006). Antioxidant activity and hepatoproctective potential of *Phyllanthus niruri*. *Food Chemistry, 93,* 180–185.

Hartmann, M.A. (1998). Plant sterols and the membrane environment. *Trends in Plant Science, 3(5),* 170–175.

Harvey, A.L. (2000). Strategies for discovering drugs from previously unexplored natural products. *Drug Discovery Today, 5(7),* 294–300.

Hasenah, A., & Houghton, P.J. (2006). α-amylase inhibitory activity of some Malaysian plants used to treat diabetes; with particular reference to *Phyllanthus amarus*. *Journal of Ethnopharmacology, 107(3),* 449–455.

Hayes, R.B., Pottern, L.M., Strickler, H., Rabkin, C., Pope, V., & Swanson, G.M. (2000). Sexual behaviour, STDs and risks for prostate cancer. *British Journal of Cancer, 82(3),* 718–725.

Heinrich, M. (2010). Ethnopharmacology and Drug Discovery. In Mander, L. and Liu, H.W (ed), *Comprehensive Natural Products II: Chemistry and Biology vol. 3*. (pp. 351–381). Elsevier Science.

Hengartner, M.O. (2000). The biochemistry of apoptosis. *Nature, 407,* 770–776.

Hennings, H., Glick, A.B., Greenhalgh, D.A., Morgan, D.L., Strickland, J.E., Tennenbaum, T. & Yuspa, S.H. (1993). Critical aspects of initiation, promotion, and progression in multistage epidermal carcinogensis. *Proceedings of the Society for Experimental Biology and Medicine, 202(1),* 1–8.

Herr, I., & Debatin, K.M. (2001). Cellular stress response and apoptosis in cancer therapy. *Blood, 98,* 2603–2614.

Hiddemann, W., Schumann, J., Andreef, M., Barlogie, B., Herman, C.J., Leif, R.C., et al. (1984). Convention on nomenclature for DNA cytometry. *Cancer Genetics and Cytogenetics, 13(2),* 181–183.

Hong, W.K., & Sporn, M.B. (1997). Recent advances in chemoprevention of cancer. *Science, 278,* 1073–1077.

Horinaka, M., Yoshida, T., Shiraishi, T., Nakata, S., Wakada, M., Nakanishi, R., et al. (2005). Luteolin induces apoptosis via death receptor 5 upregulation in human malignant tumor cells. *Oncogene, 24,* 7180–7189.

Hossain, S.J., Tsujiyama, I., Takasugi, M., Islam, M.A., Biswas, R.S., & Aoshimka, H. (2008). Total phenolic content, antioxidative, anti-amylase, anti-glucosidase, and antihistamine release activities of Bangladeshi fruits. *Food Science Technology Research, 14(3),* 261–268.

Houghton, P.J., & Raman, A. (1998). *Laboratory Handbook for the Fractionation of Natural Extracts*. London: Chapman & Hall.

Hu, W., & Kavanagh, J.J. (2003). Anticancer therapy targeting the apoptotic pathway. *The Lancet Oncology, 4,* 721–729.

Hu, X., Zhang, X., Qiu, S., Yu, D. & Lin, S. (2010). Salidroside induces cell-cycle arrest and apoptosis in human breast cancer cells. *Biochemical and Biophysical Research Communication, 398,* 62–67.

Hu, Y.W., Liu, C.Y., Du, C.M., Zhang, J., Wu, W.Q., & Gu, Z.L. (2009). Induction of apoptosis in human hepatocarcinoma SMMC-7721 cells *in vitro* by flavonoids from *Astragalus complanatus*. *Journal of Ethnopharmacology, 123,* 293–301.

Hua, S.Z., Luo, J.G., Wang, X.B., Wang, J.S., & Kong, L.Y. (2009). Two novel monoterpene-chalcone conjugates isolated from the seeds of *Alpinia katsumadai*. *Bioorganic & Medicinal Chemistry Letters, 19,* 2728–2730.

Huang, S.T., Yang, R.C., & Pang, J.H. (2004). Aqueous extract of *Phyllanthus urinaria* induces apoptosis in human cancer cells. *American Journal of Chinese Medicine, 32(2),* 175–183.

Huang, S.T., Yang, R.C., Lee, P.N., Yang, S.H., Liao, S.K., Chen, T.Y., et al. (2006). Anti-tumor and anti-angiogenic effects of *Phyllanthus urinaria* in mice bearing Lewis lung carcinoma. *International Immunopharmacology, 6,* 870–879.

Huang, S.T., Yang, R.C., Yang, L.J., Lee, P.N., & Pang, J.W.S. (2003). *Phyllanthus urinaria* triggers the apoptosis and Bcl-2 down-regulation in Lewis lung carcinoma cells. *Life Sciences, 72*, 1705–1716.

Husen, R., Azimahtol, H.L.P., & Meenakshi, N. (2004). Screening for antihyperglcaemic activity in several local herbs of Malaysia. *Journal of Ethnopharmacology, 95(2-3),* 205–208.

Igney, F., & Krammer, P. (2002). Death and anti-death: tumour resistance to apoptosis. *Nature Reviews Cancer, 2,* 277–288.

Inayat, S.H. (1999). Caspases-3 and -7 are activated in goniothalamin-induced apoptosis in human Jurkat T-cells. *FEBS Letters, 456(3),* 379–383.

Ioannou, Y., & Chen, F.W. (1996). Quantification of DNA fragmentation in apoptosis. *Nuclei Acids Research, 24(5),* 992–993.

Itokawa, H., Moris-Natschke, S.L., Akiyama, T., & Lee, K.H. (2008). Plant-derived natural product research aimed at new drug discovery. *Journal of Natural Medicines, 62,* 263–280.

Jacobson, M.D., Weil, M., & Raff, M.C. (1997). Programmed cell death in animal development. *Cell, 88,* 347–354.

Jagessar, R.C., Mars, A., & Gomes, G. (2008). Selective antimicrobial properties of *Phyllanthus acidus* leaf extract against *Candida albicans*, *Escherichia coli* and *Staphylococcus aureus* using stokes disc diffusion, well diffusion, streak plate and a dilution method. *Nature and Science, 6 (2),* 24–38.

Jaiaree, N., Itharat, A., & Kumapava, K. (2010). Cytotoxic saponin against lung cancer cells from *Dioscorea birmanica* Prain & Burkill. *Journal of Medical Association of Thailand, 93(7)*, 192–197.

Jamia, A.J. (2006). Malay traditional medicine: An overview of scientific and technological progress. *Tech Monitor, Nov-Dec 2006,* 37–49

Jansen, O., Akhmedjanova, V., Angenot, L., Balansard, G., Chariot, A., Ollivier, E., et al. (2006). Screening of 14 alkaloids isolated from *Haplophyllum* A. Juss. for their cytotoxic properties. *Journal of Ethnopharmacology, 105,* 241–245.

Jaroudi, S., & Sen Gupta, S. (2007). DNA repair in mammalian embryos. *Mutation Research/Reviews in Mutation Research, 635 (1),* 53–77.

Jeena, K.J., Joy, K.L., & Kuttan, R. (1999). Effect of *Emblica officinalis*, *Phyllanthus amarus* and *Picrorrhiza kurroa* on *N*-nitrosodiethylamine induced hepatocarcinogenesis. *Cancer Letters, 136(1),* 11–16.

Jemal, A., Bray, F., Center, M.M., Ferley, J., Ward, E., & Forman, D. (2011). Global cancer statistics. *CA Cancer Journal for Clinicians,* doi: 10.3322/caac.20107.

Jemal, A., Siegel, R., Xu, J., & Ward. (2010). Cancer Statistics, 2010. *CA Cancer Journal for Clinicians, 60,* 277–300.

Ji, J.M., Hu, W.J., Yu, L.X., Qian, X.P., & Liu, B.R. (2010). Inhibiting effect of *Phyllanthus urinaria* alcohol extract on human stomach cancer cell MKN28. *Journal of Nanjing University of Traditional Chinese Medicine, 01-008*.

Jimenez, P.C., Wilke, D.V., Takeara, R., Lotufo, T.M.C., Pessoa, C., de Moraes, M.O., et al. (2008). Cytotoxic activity of a dichloromethane extract and fractions obtained from *Eudistoma vannamei* (Tunicata: Ascidiacea). *Comparative Biochemistry and Physiology, Part A. 151,* 391–398.

Jin, U.H., Lee, D.Y., Kim, D.S., Lee, I.S., & Kim, C.H. (2006). Induction of mitochondria-mediated apoptosis by methanol fraction of *Ulmus davidiana* Planch (Ulmaceae) in U87 glioblastoma cells. *Environmental Toxicology and Pharmacology, 22,* 136–141.

Jiwajinda, S., Santisopasri, V., Murakami, A., Kawanaka, M., Kawanaka, H., Gasquet, M., et al. (2002). *In vitro* anti-tumor promoting and anti-parasitic activities of the quassinoids from *Eurycoma longifolia*, a medicinal plant in Southeast Asia. *Journal of Ethnopharmacology, 82(1),* 55–58.

John, J.E. (2010). Natural products as lead-structures: a role for biotechnology. *Drug Discovery Today, 15 (11/12),* 409–410.

Jordan, V.C. (1976). Effects of tamoxifen (ICI 46,474) on initiation and growth of DMBA-induced rat mammary carcinomata. *European Journal of Cancer, 12,* 419–424.

Jose, J.K., Kuttan, G., & Kuttan, R. (2001). Antitumour activity of *Emblica officinalis*. *Journal of Ethnopharmacology, 75,* 65–69.

Joshi, C.S., & Priya, E.S. (2007). B-Glucuronidase inhibitory effect of phenolic constituents from *Phyllanthus amarus*. *Pharmaceutical Biology, 45,* 363–365.

Kakuda, R., Iijima, T., & Yaolta, Y. (2002). Triterpenoids from *Gentiana scabra*. *Phytochemistry, 59,* 791–794.

Kamaruddin, M.S., & Latiff, A. (2002). *Malaysian Medicinal Plants*. (p.343). University Kebangsaan Malaysia.

Kamesaki, H. (1998). Mechanisms involved in chemotherapy-induced apoptosis and their implications in cancer chemotherapy. *International Journal of Hematology, 68,* 29–43.

Karasavvas, N., Erukulla, R.K., Bittman, R., Lockshin, R., & Zakeri, Z. (1996). Stereospecific induction of apoptosis in U937 cells by N-octanoyl-spingosine stereoisomers and N-octyl-spingosine. *European Journal of Biochemistry, 236,* 729–737.

Keijer, J., Bunschoten, a., Palou, A., & Franssen-van Hal, L.W. (2005). Beta-carotene and the application of transcriptomics in risk-benefit evaluation of natural dietary component. *Biochima et Biophysica Acta, 1740,* 139–146.

Kerr, J.F.R., Winterford, C.M., & Harmon, B.V. (1994). Apoptosis: Its significance in cancer and cancer therapy. *Cancer, 73,* 2013–2026.

Kerr, J.F.R., Wylie, A.H., & Currie, A.R. (1972). Apoptosis: a basic biological phenomenon with wide-ranging implication in tissue kinetics. *British Journal of Cancer, 26,* 239–257.

Kessel, D., & Luo, Y. (2000). Cells in cryptophycin-induced cell-cycle arrest are susceptible to apoptosis. *Cancer Letters, 151,* 25–29.

Khatoon, S., Rai, V., Rawat, A.K.S., & Mehrota, S. (2006). Comparative pharmacognostic studies of three *Phyllanthus* species. *Journal of Ethnopharmacology, 104,* 79–86.

Khazanah Endau Rompin Herba. (2007). (pp.66–68). Utusan Publications and Distributions.

Kiechle, F.L., & Zhang, X. (2002). Apoptosis: biochemical aspects and clinical implications. *Clinica Chimica Acta, 326,* 27–45.

Kiemer, A.K., Hartung, T., Huber, C., & Vollmar, A.M. (2003). *Phyllanthus amarus* has anti-inflammatory potential by inhibition of iNOS, COX-2, and cytokines via NF-κB pathway. *Journal of Hepatology, 38(3),* 289–297.

Kim, J.Y., Park, K.W., Moon, K.D., Lee, M.K., Choi, J., Yee, S.T., et al. (2008). Induction of apoptosis in HT-29 colon cancer cells by crude saponin from Platycodi Radix. *Food and Chemical Toxicology, 46,* 3753–3758.

Kleinsmith, L.J. (2006). Principles of Cell Biology. (pp.22–29). Pearson Benjamin Cummings, CA.

Kluck, R.M., Bossy-Wetzel, E., Green, D.R., & Newmeyer, D.D. (1997). The release of cytochrome *c* from mitochondria blocked. *Science, 275,* 1129–1132.

Kochummen, K.M. (1998). *Phyllanthus watsonii.* In: IUCN 2008. 2008 IUCN Red List of Threatened Species. Retrieved 22 February 2009, from http://www.iucnredlist.org.

Kohn, K.W. (1999). Molecular interaction map of the mammalian cell cycle control and DNA repair systems. *Molecular Biology of the Cell, 10,* 2703–2734

Krinsky, I. & Johnson, E.J. (2005). Carotenoid action and their relation to health and disease. *Molecular Aspects of Medicine, 26,* 459–516.

Kroemer, G., & Reed, J.C. (2000). Mitochondrial control of cell death. *Nature Medicine, 6,* 513–519.

Kroll, K.M., Ferrantini, A., & Domany, E. (2010). Introduction to biology and chromosomal instabilities in cancer. *Physica A, 389,* 4374–4388.

Kumar, S. (1999). Mechanisms mediating caspase activation in cell death. *Cell Death and Differentiation, 6,* 1060–1066.

Kumar, S. (2004). Measurement of caspase activity in cells undergoing apoptosis. In Brady, H.J.M (ed), *Methods in Molecular Biology: Apoptosis Methods and Protocols*. (pp.19-20). Humana Press Inc.

Kumaran, A., & Karunakaran, R.J. (2007). *In vitro* antioxidant activities of methanol extracts of five *Phyllanthus* species from India. *LWT, 40,* 344–352.

Kuo, P.L., Hsu, Y.L., Chang, C.H., & Lin, C.C. (2005). The mechanism of elliptine-induced apoptosis and cell cycle arrest in human breast MCF-7 cancer cells. *Cancer Letters, 223,* 293–301.

Kwon, H.J., Hong, Y.K., Kim, K.H., Han, C.H., Cho, S.H., Choi, J.S., et al. (2006). Methanolic extracts of *Pterocarpus santalinus* induces apoptosis in HeLa cells. *Journal of Ethnopharmacology, 105,* 229–234.

Lai, C.S., Rosemal, H.M.H.M., Nair, N.K., Majid, M.I.A., Mansor, S.M., & Navaratnam, V. (2008). *Typhonium flagelliforme* inhibits cancer cell growth *in vitro* and induces apoptosis: An evaluation by the bioactivity guided approach. *Journal of Ethnopharmacology, 118,* 14–20.

Lam, K.S. (2007). New aspects of natural products in drug discovery. *Trends in Microbiology, 15(6),* 279–289.

Le Marchand, L. (2002). Cancer preventive effects of flavonoids-a review. *Biomedicine and Pharmacotherapy*. 56: 296–301.

Le, N.T.V., & Richardson, D.R. (2002). The role of iron in cell cycle progression and the proliferation of neoplastic cells. *Biochimica et Biophysica Acta, 1603,* 31–46.

Ledgerwood, E.C., Pober, J.S., & Bradley, J.R. (1999). Recent advances in the molecular basis of TNF signal transduction. *Laboratory Investigation, 79,* 1041–1050.

Lee, C.C., & Houghton, P. (2005). Cytotoxicity of plants from Malaysia and Thailand used traditionally to treat cancer. *Journal of Ethnopharmacology, 100(3),* 237–243.

Lee, C.Y., Chiu, T.H., & Tsai, S.W. (2005). Quantitative HPLC methods for gallic acids of *Phyllanthus* (Euphorbiaceae). *Journal of Liquid Chromatography & Related Technologies, 28,* 2965–2977.

Lee, Y.M., Wu, T.H., Chen, S.F., & Chung, J.G. (2003). Effect of 5-methoxypsoralen (5-MOP) on cell apoptosis and cell cycle in human hepatocellular carcinoma cell line. *Toxicology In Vitro, 17,* 279–287.

Leete, E. (1969). Alkaloid biosynthesis. *Advances in Enzymology & Related Areas in Molecular Biology, 32,* 373–422.

Leeya, Y., Mulvany, M.J., Queiroz, E.F., Marston, A., Hostettmann, & Jansakul, C. (2010). Hypotensive activity of an n-butanol extract and their purified compounds from leaves of *Phyllanthus acidus* (L.) Skeels in rats. *European Journal of Pharmacology, 649 (1-3),* 301–313.

Leite, D.F.P., Kassuya, C.A.L., Mazzuco, T.L., Silvestre, A., de Melo, L.V., Rehder, V.L.G., et al. (2006). The cytotoxic effect and the multidrug resistance reversing action of lignans from *Phyllanthus amarus*. *Planta Medica, 72(15),* 1353–1358.

Lentini, A., Tabolacci, C., Provenzano, B., Rossi, S., & Beninati, S. (2010). Phytochemicals and protein–polyamine conjugates by transglutaminase as chemopreventive and chemotherapeutic tools in cancer. *Plant Physiology and Biochemistry, 48(7),* 627–633.

Leung, H.W., Lin, C.J., Hour, M.J., Yang, W.H., Wang, M.Y., & Lee, H.Z. (2007). Kaempferol induces apoptosis in human lung non-small carcinoma cells accompanied by an induction of antioxidant enzymes. *Food and Chemical Toxicology, 45,* 2005–2013.

Li, J.H.W., & Vederas, J.G. (2009). Drug discovery and natural products: end of an era or and endless frontier? *Science, 325,* 161–165.

Li, P., Chai, H., & Kinghorn, A.D. (2010). The continuing search for antitumor agents from higher plants. *Phytochemistry Letters, 3,* 1–8.

Li, P., Nijhawan, D., Budihardjo, I., Srinivasula, S.M., Ahmad, M., Alnemri, E.S., et al. (1997). Cytochrome *c* and dATP-dependent formation of Apaf-1/caspase-9 complex initiates an apoptotic protease cascade. *Cell, 91,* 479–489.

Lim do, Y., Jeong, Y., Tyner, A.I., & Park, J.H. (2007). Induction of cell cycle arrest and apoptosis in HT-29 human colon cancer cells by the dietary compound luteolin. *American Journal of Physiology, Gastrointestinal and Liver Physiology, 292,* G66–G75.

Lim, Y.Y., & Murtijaya, J. (2007). Antioxidant properties of *Phyllanthus amarus* extracts as affected by different drying methods. *LWT, 40,* 1664–1667.

Lippman, S.M., Kessler, J.F., & Meyskens, F.L. (1987). Retinoids as preventive and therapeutic anticancer agents (part1). *Cancer Treatment Reports, 71,* 391–405.

Liu, C.H., Huang, L.J., Kuo, S.C., Lee, T.H., Tsai, K.J., & Chan, H.C. (2009). 4-Fluoro-*N*-butylphenylacetamide (H6) inhibits cell growth via cell-cycle arrest and apoptosis in human cervical cancer cells. *Bioorganic & Medicinal Chemistry, 17,* 42–48.

Liu, J., Lin, H., & McIntosh, H. (2001). Genus *Phyllanthus* for chronic hepatitis B virus infection: a systemic review. *Journal of Viral Hepatitis, 8,* 358–366.

Liu, Jing., Li, Yan., Ren, W., & Hu, W.X. (2006). Apoptosis of HL-60 cells induced by extracts from *Narcissus tazetta* var. chinensis. *Cancer Letters, 242,* 133–140.

Liu, L.F., Desai, S.D., Li, T.K., Mao, Y., Sun, M., & Sim, S.P. (2000). Mechanism of action of camphotechin. *Annals of the New York Academy of Sciences, 922,* 1–10.

Liu, R.H. (2004). Potential synergy of phytochemicals in cancer prevention: mechanism of action. *Journal of Nutrition, 134,* 3479S–3485S.

Liu, X., Kim, C.N., Yang, J., Jemmerson, R., & Wang, X. (1996). Induction of apoptotic program in cell-free extracts: requirement for dATP and cytochrome *c*. *Cell, 86,* 147–157.

Liu, X., Zhao, M., Wang, J., Yang, B., & Jiang, Y. (2008). Antioxidant activity of methanolic extract of emblica fruit (*Phyllanthus emblica* L.) from six regions in China. *Journal of Food Composition and Analysis, 21,* 219–228.

Loike, J.D., & Horwitz, S.B. (1976). Effects of podophyllotoxin and VP-16-213 0n microtubule assembly *in vitro* and nucleoside transport in HeLa cells. *Biochemistry, 15(25)*, 5435–5443.

Losso, J.N., Bansode, R.R., Trappey, A., Bawadi, H.A., & Truax, R. (2004). In vitro anti-proliferative activities of ellagic acid. *Journal of Nutritional Biochemistry, 15,* 672–678.

Loza-Tavera, H. (1999). Monoterpenes in essential oils: biosynthesis and properties. *Advances in Experimental Medicine and Biology, 464,* 49–62.

Luo,W., Zhao, M., Yang, B., Shen, G. & Rao, G. (2009). Identification of bioactive compounds in *Phyllanthus emblica* L. fruit and their free radical scavenging activities. *Food Chemistry, 114 (2),* 499–504.

Mabberley, D.J. (2008). Mabberley's Plant Book- A Portable Dictionary of Plants, Their Classification and Uses. (pp.659-660). Cambridge University Press.

Mackeen, M.M., Ali, A. M., Lajis, N.H., Kawazu, K., Hassan, Z., Amran, M., et al. (2000). Antimicrobial, antioxidant, antitumour-promoting and cytotoxic activities of different plant part extracts of *Garcinia atroviridis* Griff. ex T. Anders. *Journal of Ethnopharmacology, 72(3),* 395–402.

Mackeen, M.M., Ali, A.M., Abdullah, M.A., Nasir, R.M., Mat, N.B., Razak, A.R., et al. (1997). Antinematodal activity of some Malaysian plant extracts against the pine wood nematode, *Bursaphelenchus xylophilus*. *Pesticide Science, 51(2),* 165–170.

Mahavorasirikul, W., Viyanant, V., Chaijoroenkul, W., Itharat, A., & Na-Bangchang, K. (2010). Cytotoxic activity of Thai medicinal plants against human cholangiocarcinoma, laryngeal and hepatocarcinoma cells *in vitro*. *BMC Complementary & Alternative Medicine, 10(55),* 1–8.

Maia, L.F., de Epifanio, R.A., & Fenical, W. (2000). New cytotoxic sterol glycosides from the Octocoal *Carijoa* (*Telesto*) *riisei*. *Journal of Natural Products, 63(10),* 1427–1430.

Manez, S., Recio, M.C., Giner, R.M., & Luis Rios, J. (1997). Effect of selected triterpenoids on chronic dermal inflammation. *European Journal of Pharmacology, 334,* 103–105.

Mangeney, R., Andriamialisoa, Z. Langlois, N., Langlois, Y., & Potier, P. (1979). Preparation of vinblastine, vincristine, and leurosidine, antitumor alkaloids from *Catharanthus* species (Apocynaceae). *Journal of the American Chemical Society, 101(8)*, 2243–2245.

Mann, J. (2002). Natural products in cancer chemotherapy: past, present and future. *Nature Reviews Cancer, 2,* 143–148.

Mans, D.R.A., Rocha, A.B., & Schwartsmann, G. (2000). Anti-cancer drug discovery and development in Brazil: targeted plant collection as a rational strategy to acquire candidate anti-cancer compounds. *Oncologist, 5,* 185–199.

Mansoor, T.A., Ramalho, R.M., Mulhovo, S., Rodrigues, C.M.P., & Ferreira, M.J.U. (2009). Induction of apoptosis in HuH-7 cancer cells by monoterpene and β-carboline indole alkaloids isolated from the leaves of *Tabernaemontana elegans*. *Bioorganic & Medicinal Chemistry Letters, 19,* 4255–4258.

Manthey, J.A., & Guthrie, N. (2002). Antiproliferative activities of citrus flavanoids against six human cancer cell lines. *Journal of Agricultural and Food Chemistry, 50,* 5837–5843.

Marston, A. (2007). Role of advances in chromatographic techniques in phytochemistry. *Phytochemistry, 68,* 2785–2797.

Martin, S.J., & Green, D.R. (1995). Apoptosis and cancer: the failure of controls on cell death and cell survival. *Critical Reviews in Oncology & Hematology, 18,* 137–153.

Martin-Smith, M., & Sneader, W.E. (1969). Biological activity of the terpenoids and their derivatives-recent advances. *Progress in Drug Research, 13,* 11–100.

Matassov, D., Kagan, T., Leblanc, J., Sikorska, M., & Zakeri, Z. (2004). Measurement of Apoptosis by DNA Fragmentation . In Brady, H.J.M. (ed), *Methods in Molecular Biology: Apoptosis Methods and Protocols.* (pp. 1-17). Humana Press Inc.

Matsunaga, S., Tanaka, R., Takaoka, Y., In, Y., Ishida, T., Rahmani, M., et al (1993). 26-Nor-D:A-friedoolean Triterpenes from *Phyllanthus watsonii. Phytochemistry, 32(1),* 165–170.

Mazumder, A., Mahato, A., & Mazumder, R. (2006). Antimicrobial potentiality of *Phyllanthus amarus* against drug resistant pathogens. *Natural Product Research, 20(4),* 323–326.

McChesney, J.D., Venkataraman, S.K., & Henri, J.T. (2007). Plant natural products: Back to the future or into extinction? *Phytochemistry, 68,* 2015–2022.

Mehmet, H. (2002). Apoptosis: caspase find a new place to hide. *Nature, 403,* 29–30.

Mello, J.F. (1980). Plants in traditional medicine in Brazil. *Journal of Ethnopharmacology, 2(1),* 49–55.

Mena-Rejon, G., Caamal-Fuentes, E., Cantillo-Ciau, Z., Cedillo-Rivera, R., Flore-Guido, J., & Moo-Puc, R. (2009). *In vitro* cytotoxic activity of nine plants used in Mayan traditional medicine. *Journal of Ethnopharmacology, 121,* 462–465.

Middleton, E., Kandaswami, C., & Theoharides, T.C. (2000). The effectes of plant flavonoids on mammalian cells: implications for inflammation, heart disease, and cancer. *Pharmacological Review, 52,* 673–751.

Militão, G.C.G., Damtas, I.N.F., Pessoa, C., Falcão, M.J.C., Silveira, E.R., Lima, M.A.S., et al. (2006). Induction of apoptosis by pterocarpans from *Platymiscium floribundum* in HL-60 human leukemia cells. *Life Sciences, 78,* 2409–2417.

Millan, A., & Huerta, M.D. (2009). Apoptosis-inducing factor and colon cancer. *Journal of Surgical Research, 151,* 163–170.

Miller,L.J., & Marx,J. (1998). Apoptosis. *Science, 281,* 1301.

Mills, J.J., Chari, R.S., Boyer, I.J., Gould, M.N., & Jirtle, R.L. (1995). Induction of apoptosis in liver tumors by the monoterpene perillyl alcohol. *Cancer Research, 55,* 979–983.

Mimeault, M., & Batra, S.K. (2010). New promising drug targets in cancer-and metastasis-initiating cells. *Drug Discovery Today, 15(9/10),* 354–362.

Miodini, P., Fioravantio, L., Di Fronzo, G., & Cappelletti, V. (1999). The two phyto-oestrogens genistein and quercetin exert different effects on oestrogen receptor function. *British Journal of Cancer, 80,* 1150–1155.

Moghadasian, M.H. (2000). Pharmacological properties of plant sterols: in vivo and in vitro observations. *Life Science, 67,* 605–615.

Mohd Fazley, A.B., Maryati, M., Asmah, R., Burr, S.A., & Fry, J.R. (2010). Cytotoxicity, cell cycle arrest, and apoptosis in breast cancer cell lines exposed to an extract of the seed kernel of *Mangifera pajang* (bambangan). *Food and Chemical Toxicology, 48,* 1688–1697.

Moongkarndi, P., Kosem, N., Kaslungka, S., Luanratana, O., Pongpan, N., & Neungton, N. (2004). Antiproliferation, antioxidation and induction of apoptosis by *Garcinia mangostona* (mangosteen) on SKBR3 human breast cancer cell line. *Journal of Ethnopharmacology, 90,* 161–166.

Mori, A., Lehmann, S., O'Kelly, J., Kumagai, T., Desmond, J.C., Pervan, M., et al. (2006). Capsaicin, a component of red peppers, inhibits the growth of androgen-independent, p53 mutant prostate cancer cells. *Cancer Research, 66,* 3222–3229.

Muhamad, Z., & Mustafa, A.M., (1998). *Traditional Malay Medicinal Plants*. (pp.3–5). Kuala Lumpur: Fajar Bakti Publication.

Müllauer, L., Gruber, P., Sebinger, D., Buch, J., Wohlfart, S., & Chott, A. (2001). Mutations in apoptosis genes: a pathogenetic factor for human disease. *Mutation Research, 488,* 211–231.

Murakami, A., Ali, A.A., Mat-Salleh, K., Koshimizu, K., & Ohigashi, H. (2000). Screening for the *In Vitro* Anti-tumor-promoting Activities of Edible Plants from Malaysia. *Bioscience, Biotechnology, and Biochemistry, 64(1)*, 9–16.

Murakoshi, M., Nishino, H., Satomi, Y., Takayusu, J., Hasegawa, T., Tokuda, H., et al. (1992). Potent preventive action of α-carotene against carcinogenesis: Spontaneous liver carcinogenesis and promoting stage of lung and skin carcinogenesis in mice are suppressed more effectively by α-carotene than by β-carotene. *Cancer Research, 52,* 6583–6587.

Murgia, M., Pizzo, P., Sandona', D., Zanovello, P., Rizzuto, R., & Di Virgilio, F. (1992). Mitochondrial DNA is not fragmented during apoptosis. *Journal of Biological Chemistry, 267,* 10939–10941.

Murugaiyah, V., & Chan, K.L. (2006). Antihyperuricemic lignans from the leaves of *Phyllanthus niruri*. *Planta Medica, 72,* 1262–1267.

Nagamine, M.K., da Silva, T.C., Matsuzaki, P., Pinello, K.C., Cogliati, B., Pizzo, C.R., et al. (2009). Cytotoxic activity of butanolic extract from *Pfaffia paniculata* (Brazilian Ginseng) on cultured human breast cancer cell line MCF-7. *Experimental and Toxicologic Pathology, 61*, 75–82.

Nagata, S. (1999). Fas ligand-induced apoptosis. *Annual Reviews of Genetics, 33,* 29–55.

Narayanan, B.A., Geoffroy, O., Willingham, M.C., Re, G.G., & Nixon, D.W. (1999). p53/p21 (WAF1/CIP1) expression and its possible role in G1 arrest and apoptosis in ellagic acid treated cancer cells. *Cancer Letters, 136,* 215–221.

Newman, D.J., & Cragg, G.M. (2007). Natural products as sources of new drug over the last 25 years. *Journal of Natural Products, 70,* 461–477.

Newman, D.J., Cragg, G.M., & Snader, K.M. (2000). The influence of natural products upon drug discovery. *Natural Products Reports, 17(3),* 215–234.

Newman, D.J., Cragg, G.M., & Snader, K.M. (2003). Natural products as sources of new drug over the period 1981-2002. *Journal of Natural Products, 66(7),* 1022–1037.

Ng, F.S.P. (2000). The identity of the Melaka. *Malaysian Naturalist, 53(3),* 32–35.

Nhan, T.Q., Liles,W.C., & Schwartz, S.M. (2006). Physiological Functions of Caspases Beyond Cell Death. *American Journal of Pathology, 169,* 729

Nicholson, D.W. (1999). Caspase structure, proteolytic substrates, and functioning during apoptotic cell death. *Cell Death and Differentation, 6,* 1028–1042.

Nicholson, D.W., & Thornberry, N.A. (1997). Caspases: killer proteases. *Trends in Biochemical Sciences, 22,* 299–306.

Nik Najib, N.A.R., Furuta, T., Kojima, S., Takane, K., & Mustafa, A.M. (1999). Antimalarial activity of extracts of Malaysian medicinal plants. *Journal of Ethnopharmacology, 64(3),* 249–254.

Nishino, H., Muakoshi, M., Tokuda, H., & Satomi, Y. (2008). Cancer prevention by carotenoids. *Archives of Biochemistry and Biophysics.*

Nishiura, J.L., Campos, A.H., Boim, M.A., Heilberg, I.P., & Schor, N. (2004). *Phyllanthus niruri* normalizes elevated urinary calcium levels in calcium stone forming (CSF) patients. *Urology Research, 32(5),* 362–366.

Noble, R.L. (1990). The discovery of the vinca alkaloids-chemotherapeutic agents against cancer. *Biochemistry and Cell Biology, 68,* 1344–1351.

Norat, T., Lukanova, A., Ferrari, P., & Riboli, E. (2002). Meat consumption and colorectal cancer risk: dose-response meta-analysis of epidemiological studies. *International Journal of Cancer, 98,* 241–256.

Nunez, R. (2001). DNA measurement and cell cycle analysis by flow cytometry. *Current Issues in Molecular Biology, 3(3),* 67–70.

Oberhammer, F., Wilson, J.W., Dive, C., Morris, I.D., Hickman, J.A., Wakeling, A.E., et al. (1993). Apoptotic death in epithelial cells: cleavage of DNA to 300 and/or 50 kb fragments prior to or in the absence of internucleosomal fragmentation. *The EMBO Journal, 12,* 3679–3684.

Ong, C.Y., Ling, S.K., Rasadah, M.A., Chee, C.F., Zainon, A.S., Ho, A.S.H., et al. (2009). Systematic analysis of in vitro photo-cytotoxic activity in extracts from terrestrial plants in Peninsula Malaysia for photodynamic therapy. *Journal of Photochemistryt and Photobiology B*: *Biology, 96,* 216–222.

Ong, H.C., & Norzalina, J. (1999). Malay herbal medicine in Gemencheh, Negri Sembilan, Malaysia. *Fitoterapia, 70,* 10–14.

Oparaocha, E.T., & Okorie, C. (2009). In vivo evaluation of anti-malarial activity of three medicinal plants used in South Eastern Nigeria. *Journal of Herbs, Spices & Medicinal Plants, 15,* 121–128.

Ormerod, M.G. (2002). Investigating the relationship between the cell cycle and apoptosis using flow cytometry. *Journal of Immunological Methods, 265,* 73–80.

Padma, P., & Setty, O.H. (1999). Protective effect of *Phyllanthus fraternus* against carbon tetrachloride-induced mitochondrial dysfunction. *Life Sciences, 64,* 2411–2417.

Pailard, F., Finot, F., Mouche, I., Prenez, A., & Vericat, J.A. (1999). Use of primary cultures of rat hepatocytes to predict toxicity in the early development of new entities. *Toxicology in Vitro, 1,* 693–700.

Pan, L., Chai, H., & Kinghorn, A.D. (2010). The continuing search for antitumor agents from higher plants. *Phytochemistry Letters, 3,* 1–8.

Panchal, R.G. (1998). Novel therapeutics strategies to selectively kill cancer cells. *Biochemical Pharmacology, 55,* 247–252.

Pardee, A.B. (1974). A restriction point for control of normal animal cell proliferation. *Proceedings of the National Academy of Science U.S.A., 71,* 1286–1290.

Park, E.J., Min, H.Y., Chung, H.J., Hong, J.Y., Kang, Y.J., Hung, T.M., et al. (2009). Down-regulation of c-Src/EGFR-mediated signaling activation is involved in the honokiol-induced cell cycle arrest and apoptosis in MDA-MB-231 human breast cancer cells. *Cancer Letters, 277,* 133–140.

Park, H.J., Kim, M.J., Ha, E., & Chung, J.H. (2008). Apoptotic effect of hesperidin through caspase-3 activation in human colon cancer cells, SNU-C4. *Phytomedicine, 15,* 147–151.

Parkin, D.M. (2001). Global statistics in the year 2000. *Lancet Oncology, 2,* 533–543.

Parkin, D.M., Bray, F., Ferlay, J. & Pisani, P. (2005). Global cancer statistics 2002. *A Cancer Journal for Clinicans, 55,* 74–108.

Patwardhan, B., Vaidya, A.D.B. & Chorghade, M. (2004). Ayurveda and natural products drug discovery. *Current Science, 86(6),* 789–799.

Peng, B., Chang, Q., Wang, L., Hu, Q., Wang, Y., Tang, J., et al. (2008). Suppression of human ovarian SKOV-3 cancer cell growth by *Duchesnea* phenolic fraction is associated with cell cycle arrest and apoptosis. *Gynecologic Oncology, 108,* 173–181.

Perbadanan Bioteknologi dan Biodiversiti Negeri Johor. (2009). Johor Biodiversiti Database. Retrieved 27 February 2010, from http://iwana.com.my/jbiotech/index.php.

Perchellet, J.P., Gali, H.U., Perchellet, E.M., Klish, D.S., & Armbrust, A.D. (1992). Antitumor promoting activities of tannin acid, ellagic acid, and several gallic acid derivatives in mouse skin. *Basic Life Science, 59,* 73–801.

Perz, J.F., Armstrong, G.L., Farrington, L.A., Hutin, Y.J.F., & Bell, B.P. (2006). The contributions of hepatitis B virus and hepatitis C virus infections to cirrhosis and primary liver cancer worldwide. *Journal of Hepatology, 45(4),* 529–538.

Pichersky, E., & Gang, D.R. (2000). Genetics and biochemistry of secondary metabolites in plants: an evolutionary perspective. *Trends in Plant Science, 5(10),* 439–445.

Ping, C.K., Li, S.S., Damu, A.G., Chung, R.S., Chieh, H.H., Chih, H.K., et al. (2003). Cytotoxic and antimalarial β-Carboline alkaloids from the roots of *Eurycoma longifolia*. *Journal of Natural Products, 66(10)*, 1324–1327.

Pinkoski, M.J., & Green, D.R. (1999). Fas ligand, death gene. *Cell Death and Differentiation, 6,* 1174–1181.

Plaumann, B., Fritsche, M., Rimpler, H., Brandner, G., & Hess, R.D. (1996). Flavonoids activate wild-type p53. *Oncogene, 13,* 1605–1614.

Polunin, I. (1988). *Plants and flowers of Malaysia*. (pp.25–148). Times edition.

Popov, B., Chang, L.S., & Serikov, V. (2005). Cell cycle-related transformation of the E2F4-p130 repressor complex. *Biochemical and Biophysical, Research Communication, 336,* 762–769.

Potmesil, M. (1994). Camptothecins: From bench research to hospital wards. *Perspectives in Cancer Research, 54*, 1431–1439.

Powell, C.B., Fung, P., Jackson, J., Dall' Era, J., Lewkowicz, D., Cohen, I., et al. (2003). Aqueous extract of herb *Scutellaria barbatae*, a chinese herb used for ovarian cancer, induces apoptosis of ovarian cancer cell lines. *Gynecologic Oncology, 91,* 332–340.

Prakrashi, A., Pandit, S., Bandyopadhyay, S.K., & Prakrashi, S.C. (2003). Antioxidant effect of *Phyllanthus emblica* fruit on healing of indomethacin induced gastric ulcer in rats. *Indian Journal of Clinical Biochemistry, 18(1),* 15–21.

Pramyothin,P., Samosorn, P., Poungshompoo, S., & Chaichantipyuth, C. (2006). The protective effects of *Phyllanthus emblica* Linn. extract on ethanol induced rat hepatic injury. *Journal of Ethnopharmacology, 107(3),* 361–364.

Prasanna, R., Harish, C.C., Pichai, R., Sakthisekaran, D., & Gunasekaran, P. (2009). Anti-cancer effect of *Cassia auriculata* leaf extract *in vitro* through cell cycle arrest and induction of apoptosis in human breast and larynx cancer cell lines. *Cell Biology International, 33,* 127–134.

Purohit, A., Hejaz, H.A., Walden, L., MacCarthy-Morrogh, L., Packam, G., Potter, B.V., et al. (2000). The effect of 2-methoxyoestrone-3-O-sulphamate on the growth of breast cancer cells and induced mammary tumours. *International Journal of Cancer, 85,* 584–589.

Qi, F., Li, A., Zhao, L., Xu, H., Inagaki, Y., Wang, D., et al. (2010). Cinobufacini, an aqueous extract from *Bufo bufo gargarizans* Cantor, induces apoptosis through a mitochondria-mediated pathway in human hepatocellular carcinoma cells. *Journal of Ethnopharmacology, 128,* 654–661.

Qiang, Z., Xin, H.Z., & Zhu, J.W. (2009). Cytotoxicity of flavones and flavonols to a human esophageal squamous cell carcinoma cell line (KYSE-510) by induction of G_2/M arrest and apoptosis. *Toxicology In Vitro, 23,* 797–807.

Rabi, T., & Bishayee, A. (2008). Terpenoids and breast cancer chemoprevention. *Breast Cancer Research and Treatment, 115(2),* 223–239.

Radhika, N.K., Sreejith, P.S., & Asha, V.V. (2010). Cytotoxic and apoptotic activity of *Cheilanthes farinose* (Forsk.) Kaulf. against human hepatoma, Hep3B cells. *Journal of Ethnopharmacology, 128,* 166–171.

Rajeshkumar, N.V., Joy, K.L., Girija, K., Ramsewak, R.S., Nair, M.G., & Ramadasan, K. (2002). Antitumour and anticarcinogenic activity of *Phyllanthus amarus* extract. *Journal of Ethnopharmacology, 81,* 17–22.

Rajkapoor, B., Sankari, M., Sumithra, M., Anbu, J., Harikirishnan, N., Gobinath, et al. (2007). Antitumor and cytotoxic effects of *Phyllanthus polyphyllus* on Ehrlich ascites carcinoma and human cancer cell lines. *Bioscience, Biotechnology and Biochemistry, 71(9),* 2177–2183.

Ramesh, N., Viswanathan, M.B., Tamil Selvi, V., & Lakshmanaperumalsamy, P. (2004). Antimicrobial and phytochemical studies on the leaves of *Phyllanthus Singampattiana* (Sebastine & A.N. Henry) Kumari & Chandrabose from India. *Medicinal Chemistry Research, 13 (6/7),* 348–360.

Rangarajan, A., & Weinberg, R.A. (2003). Opinion: comparative biology of mouse versus human cells: modeling human cancer in mice. *Nature Reviews of Cancer, 3,* 952–959.

Reddy, B.S., Wang, C.X., Samaha, H., Lubet, R., Steele, V.E., Kelloff, G.J., et al. (1997). Chemoprevention of colon carcinogenesis by dietary perillyl alcohol. *Cancer Research, 57,* 420–425.

Reddy, L., Odhav, B., & Bhoola, K.D. (2003). Natural products for cancer prevention: A global perspective. *Pharmacology & Therapeutics, 99(1),* 1–13.

Reed, J.C (2003). Apoptosis-targeted therapies for cancer. *Cancer Cell, 3,* 17.

Reed, J.C. (1998). bcl-2 family proteins. *Oncogene, 17,* 3225–3236.

Ren Z., Elson, C.E., & Gould, M.N. (1997). Inhibition of type I and type II Geranylgeranyl protein transferase by the monoterpene perillyl alcohol in NIH3T3 cells. *Biochemical Pharmacology, 54,* 113–120.

Ricciardelli, C., & Oehler, M.K. (2009). Diverse molecular pathways in ovarian cancer and their clinical significance. *Maturitas, 62(3),* 270–275.

Ronot, X., Hecquet, C., Larno, S., Hainque, B., & Adolphe, M. (1986). G_2 Arrest, binucleation, and single parameter DNA flow cytometric analysis. *Cytometry, 7(3),* 286–290.

Rowinsky, E.K., Onetto, N., Canetta, R.M., & Arbuck, S.G. (1992). Taxol: the first of the taxanes, an important new class of antitumour agents. *Seminars in Oncology, 19(6)*, 646-662.

Ruffa, M.J., Ferraro, G., Wagner, M.L., Calcagno, M.L., Campos, R.H., & Cavallaro, L. (2002). Cytotoxic effect of Argentine medicinal plant extracts on human hepatocellular carcinoma cell line. *Journal of Ethnopharmacology, 79,* 335–339.

Rukayah, A. (2008). *Tanaman berkhasiat ubatan*. (pp.27–109). Kuala Lumpur: Dewan Bahasa dan Pustaka.

Saha, K., Lajis, N.H., Israf, D.A., Hamzah, A.S., Khozirah, S., Khamis, S., et al. (2004). Evaluation of antioxidant and nitric oxide inhibitory activities of selected Malaysian medicinal plants. *Journal of Ethnopharmacology, 92 (2–3),* 263–267.

Saleem, M., Nazir, M., Akhtar, N., Onocha, P.A., Riaz, N., Jabbar, A., et al. (2009). New phthalates from *Phyllanthus muellerianus* (Euphorbiaceae). *Journal of Asian Natural Products Research, 11(11),* 974–977.

Samuel, R., Kathriarachchi, H., Hoffmann, P., Barfuss, M.H.J., Wurdack, K.J., Davis, C.C., et al. (2005). Molecular phylogenetics of Phyllanthaceae: Evidence from plastid MATK and nuclear PHYC sequences. *American Journal of Botany, 92(1),* 132–141.

Samuel, T., Weber, H.O., & Funk, J.O. (2002). Linking DNA damage to cell cycle checkpoints. *Cell Cycle, 1,* 162–168.

Samy, J., Sugumaran, M., & Lee, K.L.W. (2005). *Herbs of Malaysia: An introduction to the medicinal, culinary, aromatic and cosmetic use of herbs*. (p.11). Times Edition.

Sanchez-Lamar, A., Fiore, M., Cundari, E., Rocordy, R., Cozzi, R., & De Salvia, R. (1999). *Phyllanthus orbicularis* aqueous extract: Cytotoxic, genotoxic, and antimutagenic effects in the CHO cell line. *Toxicology and Applied Pharmacology, 161,* 231–239.

Santafe, G., Paz, V., Rodriguez, J., & Jimenez, C. (2002). New cytotoxic oxygenated C29 sterols from the Colombian marine sponge *Polymastia tenax*. *Journal of Natural Products, 65(8),* 1161–1164.

Sarkar, F.H., & Li, Y. (2009). Harnessing the fruits of nature for the development of multi-targeted cancer therapeutics. *Cancer Treatment Reviews, 35,* 597–607.

Schendel, S.L., Montal, M., & Reed, J.C. (1998). bcl-2 family proteins as ion-channels. *Cell Death and Differentiation, 5,* 372–380.

Schiffman, M.H. (1992). Recent progress in defining the epidemiology of human papillomavirus infection and cervical neoplasia. *Journal of the National Cancer Institute, 84,* 394–398.

Schmidt, M.L., Kuzmanoff, K.L., Ling-Indeck, L., & Pezzuto, J.M. (1997). Betulinic acid induces apoptosis in human neuroblastoma cell lines. *European Journal of Cancer, 33,* 2007–2010.

Schwartz, G.K., & Shah, M.A. (2005). Targeting the cell cycle: a new approach to cancer therapy. *Journal of Clinical Oncology, 23,* 9408–9421.

Sesink, A.L.A., Termont, D.S., Kleibeuker, J.H., & van der Meer, R. (1999). Read meat and colon cancer: the cytotoxic and hyperproliferative effects of dietary heme. *Cancer Research, 59,* 5704–5709.

Sgonc, R., & Wick, G. (1994). Methods for the detection of apoptosis. *International Archives of Allergy and Immunology, 105(4),* 327–332.

Shakil, N.A., Pankaj, Kumar, J., Pandey, R.K., & Saxena, D.B. (2008). Nematicidal prenylated flavones from *Phyllanthus niruri*. *Phytochemistry, 69,* 759–764.

Sharma, M., Agrawal, S.K., Sharma, P.R., Chadha, B.S., Khosla, M.K., & Saxena, A.K. (2010). Cytotoxic and apoptotic activity of essential oil from *Ocimum viride* towards COLO 205 cells. *Food and Chemical Toxicology, 48,* 336–344.

Sheridan, J.W., Bishop, C.J., & Simmons, R.J. (1981). Biophysical and morphological correlates of kinetic change and death in a starved human melanoma cell line. *Journal of Cell Science, 49,* 119–137.

Sherr, C.J. (2000). The Pezcoller lecture: cancer cell cycles revisited. *Cancer Research, 60,* 3689–3695.

Sheu, J.H., Chang, K.C., & Duh, C.Y. (2000). A cytotoxic 5a,8a-Epidioxysterol from soft coral *Sinularia* species. *Journal of Natural Products, 63(1),* 149–151.

Sheu, J.H., Wang, G.H., Sung, P.J., Chiu, Y.H., & Duh, C.Y. (1997). Cytotoxic sterols from the Formosan brown alga *Turbinaria ornate*. *Planta Medica, 63(6),* 571–572.

Shih, S.C., & Stutman, O. (1996). Cell cycle-dependent tumor necrosis factor apoptosis. *Cancer Research, 56,* 1591–1598.

Sholikhah, E.N., Mustofa & Wahyuono, S. (2004). Antiplasmodial and cytotoxic activities of extracts of meniran (*Phyllanthus niruri*) traditionally used to treat malaria in Indonesia. *Clinical and Experimental Pharmacology and Physiology, 31(1),* A168–A169.

Silva, M.J.D. (2006). A new species of *Phyllanthus* (Phyllanthaceae) from North Eastern Brazil. *Novon, 16,* 421–423.

Singal, P.W., & Iliskovic, N. (1998). Doxorubicin-Induced Cardiomyopathy. *The New England Journal of Medicine, 339,* 900–905.

Singh, B., Agarwal, P.K., & Thakur, R.S. (1989). An acyclic triterpene from *Phyllanthus niruri*. *Phytochemistry, 28(7),* 1980–1981.

Slee, E.A., & Adrian, C. (1999). Serial killers: ordering caspase activation events in apoptosis. *Cell Death and Differentiation, 6,* 1067–1074.

Slee, E.A., Harte, M.T., Kluck, R.M., Wolf, B.B., Casiano, C.A., & Newmeyer, D.D. (1999). Ordering the cytochrome *c*-initiated caspase cascade: hierarchical activation of caspases-2, -3, -6, -7, -8 and -10 in a caspase-9 dependent manner. *The Journal of Cell Biology, 144,* 281–292.

So, F.V., Guthrie, N., Chambers, A.F., Moussa, M., & Carroll, K.K. (1996). Inhibition of human breast cancer cell proliferation and delay of mammary tumorigenesis of flavonoids and citrus juices. *Nutrition and Cancer, 26,* 167–81.

Son, Y.O., Kim, J., Lim, J.C., Chung, G.H., & Lee, J.C. (2003). Ripe fruits of *Solanum nigrum* L. inhibits cell growth and induces apoptosis in MCF-7 cells. *Food and Chemical Toxicology, 41,* 1421–1428.

Sousa, M., Ousingsawat, J., Seitz, R., Puntheeranurak, S., Regalado, A., Schmidt, A., et al. (2007). An extract from medicinal plant *Phyllanthus acidus* and its isolated compounds induce airway chloride secretion: A potential treatment for cystic fibrosis. *Molecular Pharmacology, 71(1),* 366–376.

Sri Nurestri, A.M., Norhanom, A.W., Hashim, Y., Sim, K.S., Hong, S.K., Lee, G.S., et al. (2008). Cytotoxic activity of *Pereskia bleo* (Cactaceae) against selected human cell lines. *International Journal of Cancer Research, 4(1)*, 20–27.

Sri Nurestri, A.M., Sim, K.S.,Norhanom, A.W., & Hashim, Y. (2009). Cytotoxic components of *Pereskia bleo* (Kunth) DC. (Cactaceae) Leaves. *Molecules, 14*, 1713–1724.

Staker, B.L., Hjerrild, K., Feese, M.D., Behnke, C.A., Burgin Jr, A.B., & Stewart, L. (2002). The mechanism of topoisomerase I poisoning by a camptothecin analog. *Proceedings of the National Academy of Sciences U.S.A., 99,* 5387–5392.

Stark, M.J., Burke, Y.D., McKinzie, J.H., Ayoubi, A.S., & Crowell, P.L. (1995). Chemotherapy of pancreatic cancer with the monoterpene perillyl alcohol. *Cancer Letters, 96,* 15–21.

Stoner, G.D., & Morse, A.M. (1997). Isothiocyanates and plant polyphenols as inhibitors of lung and esophageal cancer. *Cancer Letters, 114,* 113–119.

Strahm, B., & Capra, M. (2005). Insights into the molecular basis of cancer development. *Current Pediatrics, 15(4),* 333–338.

Su, N.W., Lin, Y.L., Lee, M.H., & Ho, C.Y. (2005). Ankaflavin from *Monascus*-fermented red rice exhibits selectivite cytotoxic effect and induces cell death on HepG2 cells. *Journal of Agricultural and Food Chemistry, 53(6)*, 1949–1954.

Sun, J., & Liu, R.H. (2006). Cranberry phytochemical extracts induce cell cycle arrest and apoptosis in human MCF-7 breast cancer cells. *Cancer Letters, 241,* 124–134.

Sun, S.Y., Hail Jr, N., & Lotan, R. (2004). Apoptosis as a novel target for cancer chemprevention. *Journal of National Cancer Institute, 96,* 662–672.

Sung, J. (2007). Colorectal cancer screening: its time for action in Asia. *Cancer Detection and Prevention, 31,* 1–2.

Suntornsuk, L. (2002). Capillary electrophoresis of phytochemical substances. *Journal of Pharmaceutical and Biomedical Analysis, 27,* 679–698.

Suresh, K., & Vasudevan, D.M. (1994). Augmentation of murine natural killer cell and antibody dependent cellular cytotoxicity activities by *Phyllanthus emblica*, a new immunomodulator. *Journal of Ethnopharmacology, 44(1),* 55–60.

Sutthivaiyakit, S., Nakorn, N.N., Kraus, W., & Sutthivaiyaki, P. (2003). A novel 29-*nor*-3,4-*seco*-friedelane triterpene and a new guaiane sesquiterpene from the roots of *Phyllanthus oxyphyllus*. *Tetrahedron, 59,* 9991–9995.

Syamsundar, K.V., Singh, B., Thakur, R.S., Hussain, A., Kiso, Y., & Hikino, H. (1985). Antihepatotoxic principles of *Phyllanthus niruri* herb. *Journal of Ethnopharmacology, 14,* 41–44.

Szakacs G & Gottesman, M.M. (2004). Comparing solid tumor with cell lines: Implications for identifying drug resistance genes in cancers. *Molecular Interventions, 4(6)*, 323–325.

Takagaki, N., Sowa, Y., Oki, T., Nakanishi, R., Yogosawa, S., & Sakai, T. (2005). Apigenin induces cell cycle arrest and p21/WAF1 expression in a p53-independent pathway. *International Journal of Oncology, 26,* 185–189.

Tallman, M.S., & Wiemik, P.H. (1992). Retinoids in cancer treatment. *Journal of Clinical Pharmacology, 32,* 868–888.

Tan, G.T., Gylenhaal, C., & Soejarto, D.D. (2006). Biodiversity as a source of anticancer drugs. *Current Drug Targets, 7,* 265–277.

Tanaka, R., Tabuse, M., & Matsunaga, S. (1988). Triterpenoids from the stem bark of *Phyllanthus flexuosus*. *Phytochemistry, 27(11),* 3563–3567.

Tang, Y.Q., Jaganath, I.B., & Sekaran, S.D. (2010). *Phyllanthus* spp. induces selective growth inhibition of PC-3 and MeWo human cancer cells through modulation of cell cycle and induction of apoptosis. *Plos One, 5(9),* 1–11.

Taraphdar, A.K., Roy, M., & Bhattarcharya, R.K. (2001). Natural products as inducers of apoptosis: implication for cancer therapy and prevention. *Current Science, 80,* 10–11.

Teel, R.W. (1986). Ellagic acid binding to DNA as a possible mechanism for its antimutagenic and anticarcinogenic action. *Cancer Letters, 30,* 329–336.

Thomas, G.A., & Leonard, R.C.F. (2009). How age affects the biology of breast cancer. *Clinical Oncology, 21,* 81–85.

Thornberry, N.A., & Lazebnik, Y. (1998). Caspases: enemies within. *Science, 281,* 1312–1316.

Tokarska-Schlattner, M., Wallimann, T., & Schlattner, U. (2006). Alterations in myocardial energy metabolism induced by the anti-cancer drug doxorubicin. *Comptes Rendus Biologies, 329(9),* 657–668.

Troll, W., & Wiesner, R. (1985). The role of oxygen radicals as a possible mechanism of tumor promotion. *Annual Review of Pharmacology and Toxicology, 25,* 509–528.

Tuchinda, P., Kornsakulkarn, J., Pohmakotr, M., Kongsaeree, P., Prabpai, S., Yoosook, C., et al. (2008). Dichapetalin-type triterpenoids and lignana from the aerial parts of *Phyllanthus acutissima*. *Journal of Natural Products, 71(4),* 655–663.

Twomey, C., & McCarthy, J.V. (2005). Pathways of apoptosis and importance in development. *Journal of Cellular and Molecular Medicine, 9,* 345–359.

Unander, D.W., Herbert, H.B., Lance, C.J., & McMillan Jr, T. (1993). Cultivation of *Phyllanthus amarus* and evaluation of variables potentially affecting yield and the inhibition of viral DNA polymerase. *Economic Botany, 47(1),* 79–88.

Ur-Rehman, H., Yasin, K.A., Choudhary, M.A., Khaliq, N., Ur-Rahman, A., Choudhary, M.I., et al. (2007). Studies on the chemical constituents of *Phyllanthus emblica*. *Natural Product Research, 21(9),* 775–781.

Vander Heiden, M.G., & Thompson, C.B. (1999). Bcl 2 proteins: regulators of apoptosis or of mitochondrial homeostasis. *Nature Cell Biology, 1,* 209–216.

Vargo-Gogola, T., & Rosen, J.M. (2007). Modeling breast cancer: one size does not fit all. *Nature Reviews Cancer, 7,* 659–672.

Vaux, D.I. , & Korsmeyer, S.J. (1999). Cell death in development. *Cell, 96,* 245–254.

Verma, M., Singh, S.K., Bhushan, S., Sharma, V.K., Dalt, P., Kapachi, B.K., et al. (2008). *In vitro* potential of *Polyalthia longifolia* on human cancer cell lines and induction of apoptosis through mitochondrial-dependent pathway in HL-60 cells. *Chemico-Biological Interactions, 171,* 45–56.

Vijayababu, M.R., Kanagaraj, P., Arunkumar, A., Ilangovan, R., Dharmarajan, A., & Arunakaran, J. (2006). Quercetin induces p53-independent apoptosis in human prostate cancer cells by modulating Bcl-2 related proteins: a possible mediation by IGFBP-3. *Oncology Research, 16,* 67–74.

Vimala, S., Norhanom, A.W., & Yadav. (1999). Anti-tumour promoter activity in Malaysian ginger rhizobia used in traditional medicine. *British Journal of Cancer, 80(1/2),* 110–116.

Vogelstein, B., & Kinzler, K.W. (2004). Cancer genes and the pathways they control. *Nature Medicine, 10(8),* 789–799.

Vongvanich, N., Kittakoop, P., Kramyu, J., Tantichareon, M., & Thebtaranonth, M. (2000). Phyllanthusols A and B, cytotoxic norbisabolane glycosides from *Phyllanthus acidus* Skeels. *Journal of Organic Chemistry, 65,* 5420–5423.

Vuorelaa, P., Leinonenb, M., Saikkuc, P., Tammelaa, P., Rauhad, J.P., Wennberg, T., et al. (2004). Natural products in the process of finding new drug candidates. *Current Medicinal Chemistry, 11,* 1375–1389.

Wada, S.I., Iida, A., & Tanaka, R. (2001). Screening of triterpenoids isolated from *Phyllanthus flexuosus* for DNA topoisomerase inhibitory activity. *Journal of Natural Products, 64(12),* 1545–1547.

Wagner, K.H., & Elmadfa, I. (2003). Biological relevance of terpenoids. *Annals of Nutrition and Metabolism, 47,* 95–106.

Walker, N.P., Talanian, R.V., Brady, K.D., Dang, L.C., Bump, N.J., & Ferenz, C.R. (1994). Crystal structure of the cysteine protease interleukin-1 beta converting enzyme: a (p20/p10)2 homodimer. *Cell, 78,* 343–352.

Walker, P.R., Smith, C., Youndale, T., Leblanc, J., Whitfield, J.F., & Sikorska, M. (1991). Topoisomerase II-reactive chemotherapeutic drugs induce apoptosis in thymocytes. *Cancer Research, 51,* 1078–1085.

Wang, I.K., Lin-Shiau, S.Y., & Lin, J.K. (1999). Induction of apoptosis by apigenin and related flavonoids through cytochrome *c* release and activation of caspase-9 and caspase-3 in leukaemia HL-60 cells. *European Journal of Cancer, 35,* 1517–1525.

Wang, W., Bu, B., Xie, M., Zhang, M., Yu, Z., & Tao, D. (2009). Neural cell cycle dysregulation and central nervous system diseases. *Progress in Neurobiology, 89(1),* 1–17.

Wang, Z.B., Liu, Y.Q., & Cui, Y.F. (2005). Pathways to caspase activation. *Cell Biology International, 29,* 489–496.

Wani, M.C., Taylor, H.L., Wall, M.E., Coggon, P., & McPhail, A.T. (1971). Plant antitumor agents. VI. The isolation and structure of taxol, a novel antileukemic and antitumor agent from *Taxus brevifolia*. *Journal of the American Chemical Society, 93,* 2325–2327.

Wattenberg, L.W. (1995). What are the critical attributes for cancer chemopreventive agents? *Annals of the New York Academy of Science, 768,* 73–81.

Wen, T.H., Kuan,Y.H., Hui, Y.L., & Jing, G.C. (2006). *Physalis angulata* induced G2/M phase arrest in human breast cancer cells. *Food and Chemical Toxicology, 44,* 974–983.

Werner, R. (2002). *Medicines in Malay Village*. (p.90). Kuala Lumpur: University Malaya Press.

Weyermann, J., Lochmann, D., & Zimmer, A. (2005). A practical note on the use of cytotoxicity assays. *International Journal of Pharmaceutics, 288,* 369–376.

Wick, W., Grimmel, C., Wagenknecht, B., Dichgans, J., & Weller, M. (1999). Betulinic acid-induced apoptosis in glioma cells: a sequential requirement for new protein synthesis,

formation of reactive oxygen species, and caspase processing. *Journal of Pharmacology and Experimental Therapeutics, 289,* 1306–1312.

Wilcock, C., & Hickman, J.A. (1988). Characterization of a Na^+ /K^+ /Cl^- cotransporter in alkylating agent-sensitive L1210 murine leukemia cells. *Biochimica et Biophysica Acta. 946,* 359–369.

Wink, M. (2006). Importance of plant secondary metabolites for protection against insects and microbial infections. *Advances in Phytomedicine, 3,* 251–268.

Wiseman, L.R., & Spencer, C.M. (1998). Paclitaxel. An update of its use in the treatment of metastatic breast cancer and ovarian and other gynaecological cancers. *Drugs Aging, 12,* 305–334.

Wolter, K.G., Hsu, Y.T., Smith, C.I., Nechushtan, A., Xi, X.G., & Youle, R.J. (1997). Movement of Bax from the cytosol to mitochondria during apoptosis. *Journal of Cell Biology, 139,* 1281–1292.

Wu, C.M., Yang, C.W., Lee, Y.Z., Chuang, T.H., Wu, P.L., Chao, Y.S., et al (2009). Tylophorine arrests carcinoma cells at G1 phase by downregulating cyclin A2 expression. *Biochemical and Biophysical Research Communication, 386,* 140–145.

Wylie, A.H., Morris, R.G., Smith, A.L., & Dunlop, D. (1984). Chromatin cleavage in apoptosis: association with condensed chromatin morphology and dependence on macromolecular synthesis. *Journal of Pathology, 142,* 67–77.

Wyllie, A.H. (1980). Glucocorticoid-induced thymocyte apoptosis is associated with endogenous endonuclease activation. *Nature, 284,* 555–556.

Wyllie, A.H. (1985). The biology of cell death in tumors. *Anticancer Research, 5,* 131–136.

Wyllie, A.H. (1987). Cell death. *International Review of Cytology*. 17: 755–785.

Wyllie, A.H. (1992). Apoptosis and the regulation of cell numbers in normal and neoplastic tissues: an overview. *Cancer Metastasis Reviews, 11,* 93–103.

Xiao, J.X., Huang, G.Q., Zhu, C.P., Ren, D.D., & Zhang, S.H. (2007). Morphological study on apoptosis Hela cells induced by soyasaponins. *Toxicology In Vitro, 21*, 820–826.

Yamamoto, Y., Hosokawa, M., Kurihara, H., Maoka, T., & Miyashita, K. (2008). Synthesis of phosphatidylated-monoterpene alcohols catalyzed by phospholipase D and their antiproliferative effects on human cancer cells. *Bioorganic & Medicinal Chemistry Letters, 18,* 4044–4046.

Yanez, J., Vicente, V., Alcara, M., Castilo, J., Benavente-Garcia, O., Canteras, M., et al. (2009). Cytotoxocity and antiproliferative activities of several phenolic compounds against three melanocytes cell lines: Relationship between structure and activity. *Nutrition and Cancer, 49(2),* 191–199.

Yang, C.S., Landau, J.M., Huang, M.T., & Newmark, H.L. (2001). Inhibition of carcinogenesis by dietary polyphenolics compounds. *Annual Review of Nutrition, 21:* 381–406.

Yang, H.L., Chen, C.S., Chang, W.H., Lu, F.J., Lai, Y.C., Chen, C.C., et al. (2006). Growth inhibition and induction of apoptosis in MCF-7 breast cancer cells by *Antrodia camphorate*. *Cancer Letters, 231,* 215–227.

Yang, J., Liu, X., Bhalla, K., Kim, C.N., Ibrado, A.M., Cai, J., et al. (1997). Prevention of apoptosis by Bcl-2: release of cytochrome *c* from mitochondria blocked. *Science, 275,* 1129–1132.

Yip, C.H., Nur Aishah, M.T., & Ibraham, M. (2006). Epidemiology of breast cancer in Malaysia. *Asian Pacific Journal of Cancer Prevention, 7,* 369–374.

Zakeri, Z.F., Quaglino, D., Latham, T., & Lockshin, R.A. (1993). Delayed internucleosomal DNA fragmentation in programmed cell death. *FASEB Journal, 7,* 470–478.

Zenk, M.H., & Juenger, M. (2007). Evolution and current status of the phytochemistry of nitrogenous compounds. *Phytochemistry. 68:* 2757–2772.

Zha, H., & Reed, J.C. (1997). Heterodimerization-independent functions of cell death regulatory proteins Bax and Bcl-2 in yeast and mammalian cells. *Journal of Biological Chemistry, 272,* 31482–31488.

Zhang, J., & Xu, M. (2002). Apoptotic DNA fragmentation and tissue homeostasis. *TRENDS in Cell Biology, 12(2),* 84–89.
Zhang, J.H., & Xu, M. (2000). DNA fragmentation in apoptosis. *Cell Research, 10,* 205–211.

Zhang, Y.J., Nagao, T., Tanaka, T., Yang, C.R., Okabe, H., & Kouno, I. (2004). Antiproliferative activity of the main constituents from *Phyllanthus emblica*. *Biological & Pharmaceutical Bulletin, 27 (2),* 251–255.

Zhao, J., Davis, L.C., & Verpoorte, R. (2005). Elicitor signal transduction leading to production of plant secondary metabolites. *Biotechnology Advances, 23(4),* 283–333.

Zhong, Z.G., Wu, D.P., Huang, J.L., Liang, H., Pan, Z.H., Zhang, W.Y., & Lu, H.M. (2011). Progallin A isolated from the acetic ether part of the leaves of *Phyllanthus emblica* L. induces apoptosis of human hepatocellular carcinoma BEL-7404 cells by up-regulation of Bax expression and down-regulation of Bcl-2 expression. *Journal of Ethnopharmacology, 133*, 765–772.

Zi, B.W., Yu, Q.L., & Yu, F.C. (2005). Pathways to caspase activation. *Cell Biology International, 29,* 489–496.

Zuco, V., Supino, R., Righetti, S.C., Cleris, L., Marchesi, E., Gambacorti-Passerini, C., et al. (2002). Selective cytotoxicity of betulinic acid on tumor cell lines, but not on normal cells. *Cancer Letters, 175,* 17–25.